Attachment J01

Soldier Systems Center Water Distribution System

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J01 Soldier Systems Center Water Distribution System

J01.1 Soldier Systems Center Area Overview

The U.S. Army Soldier Systems Center (SSC), Natick, Massachusetts, is a compact military installation situated on approximately 78 acres located on the eastern shore of Lake Cochituate, approximately 17 miles west of Boston, adjacent to the Town of Natick. SSC provides support to various DoD organizations conducting research, development and testing activities to assure acceptable equipment and technologies for U.S. Army personnel.

SSC includes six geographic areas: the Main Installation area and five off-Post housing areas. The Kansas Street and Heritage Lane housing areas are located adjacent to the Main Installation area, and their potable water distribution systems are the only off-Post facilities included in this Privatization action. The three remaining housing areas are in the nearby towns of Needham, Wayland, and Hudson, but are not included in this Privatization action. SSC's physical plant at the Main Installation includes over 50 buildings or structures. In total, the Main Installation physical plant covers approximately 817,350 square feet (SF). Potable water utility service is provided to 37 buildings covering 805,444 SF (99 percent).

J01.2 Water Distribution System Description

SSC's water distribution system includes both potable water and non-potable water distribution systems. Both systems are currently served off the 10-inch water main, which interconnects with the Town of Natick's (the Town) water main on the east side of the railroad tracks and runs along the northeastern boundary of SSC. Water is delivered to the master metering point located within the metering and backflow station for the Main Installation, as well as to the three separate meters serving the Kansas Street and Heritage Lane housing areas and the Sentry Station. The potable water system provides water for domestic and sanitary uses and the non-potable system provides water for fire protection, make-up water for the boilers and cooling towers, lawn sprinklering, etc.

J01.2.1 Water Distribution System Fixed Equipment Inventory

J01.2.1.1 Description

SSC's potable water system includes the Main Installation's metering and backflow station, roughly 11,900 linear feet of potable water mains ranging in size from less than 2 inches to 10 inches, and approximately 34 main valves ranging in size from 4 inches to 10 inches. Approximately 91 percent of SSC's potable water requirements is purchased at the Main Installation metering point and distributed throughout most of SSC's facilities. The remaining 9 percent of SSC's potable water requirements is purchased and distributed throughout the Kansas Street and Heritage Lane housing areas and the Sentry Station. The Sentry Station meter is located inside the building, whereas the housing area meters are located in underground manholes.

The non-potable water system includes roughly 6,910 linear feet of water mains ranging in size from 4 inches to 10 inches, approximately 28 main valves ranging in size from 4 inches to 10 inches and approximately 18 fire hydrants. The non-potable water system extends from the "T", which provides a connection from the potable water system to the non-potable lines throughout SSC. SSC is in the process of completing a project which when completed will allow SSC to utilize the non-potable water discharged by Building No. 94 for the make-up water for the boilers and cooling towers, which should reduce the volume of water purchased from the Town.

J01.2.1.2 Inventory

Table 1 provides a general listing of the major water distribution system fixed assets for Soldier Systems Center. The system will be sold in an "as is, where is" condition without any warranty, representation, or obligation on the part of Government to make any alterations, repairs, or improvements. Ancillary equipment attached to, and necessary for, operating the system, though not specifically mentioned herein, is considered part of the purchased utility.

Table 1
Fixed Inventory
Water Distribution System – Soldier Systems Center

Item	Size (inches)	Material	Quantity	Unit	Approximate Year of Construction
Potable Water – Pipe	1	Unknown	135	Linear Feet	1963
	1 ¼	PVC	190	Linear Feet	1963
	1 ½	PVC	375	Linear Feet	1963
	1 ½	Wrought Iron	250	Linear Feet	1963
	1 ½	Copper	280	Linear Feet	1963
	1 ½	Unknown	60	Linear Feet	1963
	2	PVC	285	Linear Feet	1963
	2	Wrought Iron	170	Linear Feet	1963
	2	Galvanized Steel	520	Linear Feet	1963
	2	Copper	110	Linear Feet	1963
	2 ½	PVC	250	Linear Feet	1963
	3	Asbestos Cement	325	Linear Feet	1963
	4	Asbestos Cement	2,560	Linear Feet	1963
	4	PVC	960	Linear Feet	1963
	6	Asbestos Cement	2,260	Linear Feet	1963
	6	Cast Iron	650	Linear Feet	1963
	8	Asbestos Cement	630	Linear Feet	1963
	10	Asbestos Cement	1,630	Linear Feet	1963
	10	Ductile Iron	260	Linear Feet	1963
Total PW Pipe			**11,900**	Linear Feet	
Potable Water Main Valves	4	--	28	Each	1963
	6	--	4	Each	1963
	10	--	2	Each	1994
Total PW Valves			34	Each	
PW Metering & Backflow Station		--	1	Each	1994
Non-Potable Pump Station					
115 gpm, 10 HP pumps		--	2	Each	2003
10,000 Gal. Concrete Tank		--	1	Each	2003
Non-Potable Water – Pipe	4	Asbestos Cement	140	Linear Feet	1963
	6	Asbestos Cement	460	Linear Feet	1963
	6	Unknown	610	Linear Feet	1963
	8	Asbestos Cement	800	Linear Feet	1963
	10	Asbestos Cement	3,790	Linear Feet	1963
	10	Cast Iron	610	Linear Feet	1963
	10	Ductile Iron	500	Linear Feet	1963
Total NPW – Pipe			**6,910**	Linear Feet	
Non-Potable Water Main Valves	4	--	1	Each	1963
	6	--	18	Each	1963
	8	--	2	Each	1963
	10	--	7	Each	1963
Total NPW Valves			28	Each	

Item	Size (inches)	Material	Quantity	Unit	Approximate Year of Construction
NPW Metering & Backflow Station		--	1	Each	1996
Hydrants			18	Each	1963

J01.2.2 Water Distribution System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field-verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

Table 2
Spare Parts
Water Distribution System – Soldier Systems Center

Qty	Item	Make/Model	Description	Remarks
None.				

Table 3
Specialized Equipment and Vehicles
Water Distribution System – Soldier Systems Center

Description	Quantity	Location	Maker
None.			

J01.2.3 Water Distribution System Manuals, Drawings, and Records Inventory

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

Table 4
Manuals, Drawings, and Records
Water Distribution System – Soldier Systems Center

Qty	Item	Description	Remarks
1	Map	Water Distribution Systems	

J01.3 Current Service Arrangements

Soldier Systems Center currently receives all its water supply from the Town of Natick through four meters: the Main Installation, Kansas Street, Heritage Lane and the Sentry Station. The Town bills SSC for its potable water consumption on a quarterly basis. The quarterly potable water consumption figures are summarized in **Table 5**.

Table 5
Potable Water Consumption
Water Distribution System – Soldier Systems Center

Account No.	Service Area	FY1997 CCFs	FY1998 CCFs	FY1999 CCFs	FY2000 CCFs	Average CCFs
2110985	Main Installation	34,305	32,906	36,471	34,577	34,565
2110970	Sentry Station (Main Gate)	20	20	23	31	24
2110955	Kansas Street Housing	300	324	464	796	471
2110940	Heritage Lane Housing	2,986	3,226	3,322	3,111	3,161
	Total	37,611	36,476	40,280	38,515	38,221

Note 1: The average usage was estimated based upon annual potable water usage during FY1997, FY1998, and FY1999 & FY2000.
Note 2: CCFs = hundreds of cubic feet.

J01.4 Secondary Metering

The complex may require secondary meters for internal billings of their reimbursable customers, utility usage management, and energy conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW Clause C.3, Future Secondary Meters.

J01.4.1 Existing Secondary Meters

Table 6 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor.

Table 6
Existing Secondary Meters
Water Distribution System – Soldier Systems Center

Meter Location: Building Number	Description
None.	

J01.4.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 7**. New secondary meters shall be installed IAW Clause C.13, Operational Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Clause C.3 and J01.5 below. Although at the present time, the installation does not require any new meters to be installed, if meters are required in the future, the Contractor shall comply with Clause C.3.3.

Table 7
New Secondary Meters
Water Distribution System – Soldier Systems Center

Meter Location	Description
None.	

J01.5 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month

for the previous month. Invoices shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

Outage Report. The Contractor's monthly outage report will be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall include the following information for Scheduled and Unscheduled outages:

> ***Scheduled:*** Requestor, date, time, duration, facilities affected, feedback provided during outage, outage notification form number, and digging clearance number.
>
> ***Unscheduled:*** Include date, time and duration, facilities affected, response time after notification, completion times, feedback provided at time of outage, specific item failure, probability of future failure, long-term fix, and emergency digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

Meter Reading Report. If required by the Contracting Officer, the monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

J01.6 Energy Savings and Conservation Projects

IAW Clause C.3, Utility Service Requirement, there are no projects planned or currently executed by Soldier Systems Center for energy conservation purposes.

J01.7 Service Area

IAW Clause C.4, Service Area and Paragraph C.4, Service Area, the service area is defined as all areas within the Main Installation boundaries and the two off-Post housing areas, (the Kansas Street and Heritage Lane housing areas). The service area also includes the 10-inch water main which runs along Kansas Street extending from the Main Installation to the connection to the Town's water system at the intersection of Kansas Street and N. Main Street (Route 27).

J01.8 Off-Complex Sites

This privatization action does not include any of SSC's off-complex sites, i.e. the housing areas located in the Towns of Needham, Wayland and Hudson.

J01.9 Specific Transition Requirements

IAW Clause C.13, Operational Transition Plan, **Table 8** lists service connections and disconnections required upon transfer, and **Table 9** lists the improvement projects required upon transfer of SSC's water system.

Table 8
Service Connections and Disconnections
Water Distribution System – Soldier Systems Center

Location	Description
None.	

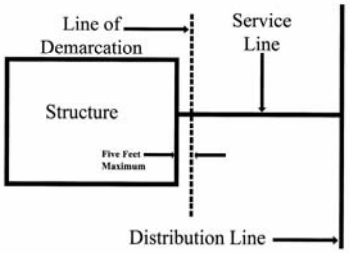
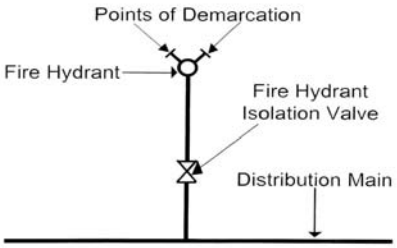
Table 9
System Improvement Projects
Water Distribution System – Soldier Systems Center

Location	Description	Year of Completion
None.		

J01.10 Water Distribution System Points of Demarcation

The point of demarcation is defined as the point on the water distribution pipe where ownership changes from the Contractor to the building owner. **Table 10** identifies the general locations of these points with respect to the building served.

Table 10
Points of Demarcation
Water Distribution System – Soldier Systems Center

Point of Demarcation	Applicable Scenario	Sketch
The point of demarcation is five feet from the face of the structure where the service line enters the structure for either potable water or non-potable service.	Potable water and non-potable water service to the structures.	
No point of demarcation exists; the utility service contractor will own all exterior fire suppression infrastructure, up to and including fire hydrants.	Exterior fire protection exists at the installation.	

J01.10.1 Unique Points of Demarcation

Table 11 lists anomalous points of demarcation that do not fit any of the above scenarios.

Table 11
Unique Points of Demarcation
Water Distribution System – Soldier Systems Center

Building No.	Point of Demarcation Description
None.	